

Appl. No.: 10/815,328
Amtd. dated 05/02/2006
Reply to Office action of February 3, 2006

Amendments to the Specification:

Please amend Paragraph [0016], as follows:

[0016] Figure 3 is a closer schematic sectional side view in the travel direction of the wires of the pressure pulse elements of an apparatus suitable for implementing the method of the invention. The figure shows a first wire 1 and a second wire 2, between which forms a convergent dewatering space 9 into which a fibre pulp suspension jet 3 is applied from a feeder chamber. The figure does not show the feeder chamber. On both sides of the dewatering space 9, against the outer surface of the wires 1 and 2, are pressure pulse elements 10a and 10b, which generate pressure pulses in the dewatering space 9 in the manner schematically shown by arrows 13 and 14. The pressure pulse elements 10a and 10b are arranged against the outer surfaces of the wires 1 and 2 on both sides of the dewatering space 9 such that when the pressure pulse element 10a (or a positive pressure pulse portion thereof) in contact with the first wire 1 generates a pressure pulse 14 in the direction of the dewatering space 9 between the wires, the pressure pulse being called a positive pressure pulse in the present invention, then, simultaneously, the pressure pulse element 10b (or a negative pressure pulse portion thereof) in contact with the second 2 wire generates a suction pulse 13 that amplifies said pressure pulse 14 in the dewatering space 9, such a pressure suction pulse being called a negative pressure pulse in the present invention. The pressure pulse is generated because filtered water on the outer surface of the wire, having penetrated the wire, but being carried with it, hits the front surface of the pressure pulse element in contact with the outer surface of the wire. The front surface of the pressure pulse element is preferably shaped such that the surface guides the water to return to the dewatering space between the wires. The generation of a pressure pulse by a pressure pulse element is a well-known phenomenon to a person skilled in the art, and self-evident to the skilled artisan, and is not described in detail herein. The negative and positive pressure pulses 13 and 14 generate local draws in the draining fibre pulp suspension 3, which draws produce shear forces that fiberize fibre flocks in the fibre pulp suspension 3 and thus cause turbulence in the dewatering space 9 between the wires 1 and 2. This turbulence prevents the fibre mat from being

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drained onto the surface of the wires 1 and 2, and since less fibre is drained on the surface of the wires 1 and 2, the discharge of water increases from the dewatering space 9 through the wires 1 and 2. In the figure, the discharge of water through the wires is schematically shown by arrows 11 and 12.

Please amend Paragraph [0017], as follows:

[0017] Figures 4a and 4b are schematic sectional side views in the travel direction of the wires of the pressure pulse elements arranged in an apparatus of the invention. The figures show a first wire 1 and a second wire 2, between which forms a dewatering space 9 into which the fibre pulp suspension 3 is applied. On both sides of the dewatering space 9, against the outer surface of the wires 1 and 2, are pressure pulse elements 10, via which water is discharged from the fibre pulp suspension 3 in the dewatering space 9 in the manner schematically shown by arrows 11 and 12. It is essential to the pressure pulse elements 10 used in the apparatus of the invention that the pressure pulse element 10 generates at least two pressure pulses that amplify each other, one of them being directed to the dewatering space 9 between the wires 1 and 2, and the other being directed away from the dewatering space 9. The pressure pulse elements 10 may be, for example, drainage foils as shown in Figure 4a, or rolls as shown in Figure 4b, wherein the rolls may be rotating or non-rotating. Further, one skilled in the art will appreciate that various combinations of such pressure pulse elements 10 may be implemented on either side of the dewatering space 9 (i.e., the pressure pulse element 10 or portion thereof generating the positive pressure pulse on one side of the dewatering space 9 may be different from the pressure pulse element 10 or portion thereof, generating the coinciding negative pressure pulse along the dewatering space 9, on the other side of the dewatering space 9), as well as along the dewatering space 9 (i.e., the pressure pulse element 10 or portion thereof generating the positive pressure pulse on one side of the dewatering space 9 or the pressure pulse element 10 or portion thereof generating the coinciding negative pressure pulse at a first position along the dewatering space 9 on the other side of the dewatering space 9, may be different from either of the pressure pulse

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elements 10 or portions thereof generating the coinciding positive and negative pressure pulses at a second position along the dewatering space 9).